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PUBLICATION 259

BOTANICAL SERIES VOL. IV, No. 7

SPERMATOPHYTES, MOSTLY PERUVIAN

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2. New Capers from Peru 168
3. Some Peruvian Annonaceae with a New Guatteria . . . 171
4. New and Renamed Peruvian Melastomes 172
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BY

J. FRANCIS MACBRIDE

B. E. DAHLGREN
Acting Curator, Department of Botany
EDITOR

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SPERMATOPHYTES, MOSTLY PERUVIAN

FROM THE

CAPTAIN MARSHALL FIELD EXPEDITIONS TO PERU

J. Francis Macbride

1. THE STATUS OF RYNCHOSPORA. SOME PERUVIAN SEDGES

In considering the South American species of this well-known group of *Cyperaceae* in connection with my own collections from Peru, I was impressed with the similarity of certain members to species of *Dichromena* Michx. Fl. Bor. Am. **1**: 37. 1803. On investigation I found that *Rynchospora* Vahl, Enum. **2**: 229. 1806 (*Rhynchospora* of authors) has frequently been amended to include *Dichromena* and that authors who have maintained both genera have often done so with evident misgivings. It seems sufficient to refer to Bentham and Hooker, Gen. Pl. 3: 1047. 1883 for a résumé of the treatments of authors to that date: Böckeler merged the two genera in 1872, Linnaea **37**: 525, and the recent distinguished student of the *Cyperaceae*, Kükenthal, Bot. Jarhb. **56**: Beiblatt 125: 16. 1921, followed suit. C. B. Clarke, Urb. Symb. Ant. **2**: 99. 1900, kept *Dichromena* but remarked: "Genus a *Rynchospora* Sect. *Psilocarya* non nisi differt spiculis capitatis, saepe stramineis vel cinnamomeis, nuces paucas (1-3) maturantibus; forsan cum cl. Boeckeler in *Rynchospora* potius mergendum."

Yet this same authority retained in *Rynchospora*, cf. Kew Bull. Misc. Inf. Add. Ser. **8**: 117 et seq. 1908, species that exhibit in one or more respects the salient characteristics upon which *Dichromena* has been maintained as a genus, for instance, the characters of few nutlets, or no setae, or simple capitate inflorescence, or presence of foliaceous bracts. Among others mention may be made of *R. Weberbaueri* Clarke, maturing 1-3 nutlets, of *R. barbata* (Vahl) Kunth and *R. rigida* (Kunth) Bcklr. with involucrate capitate and pale inflorescences but developed setae, of *R. ebracteata* (Standl.) Pfeiff. with

bracts reduced to subobscurity but in other respects with the characters of *Dichromena*. The list could be extended of species such as these that collectively at least show a dovetailing of all characters upon which *Dichromena* has rested.

These "connecting" species are all tropical American: the botanist writing on an area outside their range might well find it convenient for himself and for his readers to recognize both genera, for there, in aspect alone, they seem different enough. But from the standpoint of sound taxonomy, all species considered, there is only one generic concept, for which the proper name is *Dichromena*. *Rynchospora* stands as a *conserved* name only for those who regard it as distinct from *Dichromena*.

Probably the segregate genus *Pleurostachya* Brongn. should also be included in *Dichromena*. It was regarded as a section only of *Rynchospora* by Bentham and Hooker. There is an excellent review of these and allied genera by Pfeiffer, Rep. Spec. Nov. **23**: 342. 1927, and his synopsis of the characters shows clearly their relative distinctness, and the weakness of the particular segregates considered here.

The following species have been recorded as growing in Peru with the exception of the first, which is cited as a representative North Temperate species of the Section *Rynchospora*.

Dichromena alba (L.), comb. nov. *Schoenus albus* L. Sp. Pl. 44. 1753. *Rynchospora alba* (L.) Vahl, Enum. **2**: 236. 1806.

Dichromena alta (Bcklr.), comb. nov. *Rynchospora globosa* (HBK.) R. & S. Syst. 2: 89. 1817, not *D. globosa* (HBK.) R & S., l.c. 90. *Chaetospora globosa* HBK. Nov. Gen. and Sp. **1**: 230. 1815. *Rynchospora alta* Bcklr. Cyp. Nov. Heft **2**: 20. 1890, acc. Clarke.

DICHROMENA BLEPHAROPHORA Presl, Rel. Haenk. **1**: 351. 1830. *D. ciliata* Presl, l.c. 197, t. 32, f.2, 1828, not Vahl.

DICHROMENA BRUNNEA Bcklr. Linnaea, **37**: 593. 1873.

DICHROMENA CILIATA Vahl, Enum. **2**: 240. 1806.

DICHROMENA DISSITIFLORA Steud. ex Bcklr. Linnaea, **37**: 598. 1873

Dichromena glauca (Vahl), comb. nov. *Rynchospora glauca* Vahl, Enum. **2**: 233. 1806. *Rynchospora ferruginea* (HBK.) R. &. S Syst. **2**: 85. 1817.

DICHROMENA GLOBOSA (HBK.) R.&.S. Syst. **2**: 90. 1817. *Schoenus globosus* HBK. Nov. Gen. and Sp. **1**: 229. 1815.

If I may judge from a specimen of André referred here, from near Vista, Nov. Granat., this species differs from *D. ciliata* as indicated by HBK. and appears to merit recognition, although reduced by Clarke, Urb. Symb. Ant. **2**: 101. 1900.

Dichromena Kükenthalii (Pfeiff.), comb. nov. *Rynchospora Kükenthalii* Pfeiff. Rep. Spec. Nov. **17**: 237. 1921. *R. Uleana* Kükenth. Bot. Jahrb. **56**: Beibl. 125: 17. 1921, not Bcklr. Allg. Bot. Zeit. **2**: 110. 1896.

Dichromena Lechleri (Steud.), comb. nov. *Rynchospora Lechleri* Steud. ex Becklr. Linnaea, **37**: 633. 1873.

Dichromena macrochaeta (Steud.), comb. nov. *Rynchospora macrochaeta* Steud. ex Bcklr. Linnaea, **37**: 632. 1873.

Dichromena Mandonii (Clarke), comb. nov. *Rynchospora Mandonii* Clarke, Kew Bull. Add. Ser. **8**: 38. 1908.

Dichromena polyphylla (Vahl), comb. nov. *Rynchospora polyphylla* Vahl, Enum. **2**: 230. 1806. *Schoenus polyphyllus* Vahl, Eclog. Amer. **2**: 5. 1798.

DICHROMENA PULCHELLA Poepp. & Kth. in Kunth, Enum. **2**: 277. 1837.

DICHROMENA RADICANS Schl. & Cham. Linnaea, **6**: 28. 1831.

Dichromena Ruiziana (Bcklr.), comb. nov. *Rynchospora Ruiziana* Bcklr. Linnaea, **37**: 641. 1873.

DICHROMENA RUIZIANA (Bcklr.) Macbr., var. **triceps** (Bcklr.), comb. nov. *Rynchospora triceps* Bcklr. Linnaea, **37**: 642. 1873. *R. Ruiziana* Bcklr., var. *triceps* K. Schum. ex Clarke in Urb. Symb. Ant. **2**: 115. 1900.

Dichromena semiinvolucrata (Presl), comb. nov. *Rynchospora semiinvolucrata* Presl, Rel. Haenk. **1**: 198. 1830.

Dichromena umbraticola (Poepp. & Kth.), comb. nov. *Rynchospora umbraticola* Poepp. & Kth. in Kunth, Enum. **2**: 300. 1837.

Dichromena Weberbaueri (Clarke), comb. nov. *Rynchospora Weberbaueri* Clarke, Bot. Jahrb. **37**: 518. 1906.

Cyperus Schraderi, nom. nov. *C. Martianus* Schrad. ex Nees in Mart. Fl. Bras. **2**[1]: 32. 1842, not Schult. Mant. **2**: 108. 1824.

According to Weberbaur, Veg. der Erde **12**: 238. 1911, this Brazilian species has been found in southern Peru, Valley of Sandia, Dept. of Puno.

Stenophyllus arenarius (Nees), comb. nov. *Isolepis arenaria* Nees, Linnaea **9**: 291. 1834. *Bulbostylis arenaria* (Nees) Lindm. Bihang K. Sv. Vet. Akad. Handl. 26, Afd. 3, No. 9. 19. 1900. *Stenophyllus tenuifolius* (Rudge) Britton, var. *latesquamata* Pfeiff. Bot. Archiv **6**: 189, 193. 1924.

There seems to be good precedent for regarding this as a species. Although it may be closely related to *S. tenuifolius*, its suborbicular scales are suggestive of those of *S. scaber*. Originally Brazilian, it is now known from the Departments of Ancash and Junin, Peru.

STENOPHYLLUS CAPILLARIS (L.) Britton, var. **ciliatus** (Presl), comb. nov. *Stenophyllus eu-capillaris ciliata* (Presl) Pfeiff. Bot. Archiv **6**: 187, 193. 1924.

Originally collected near Huanuco, Peru, by Presl and apparently not recollected in Peru, this plant seems to be better known in Brazil.

Scleria spicata (Spreng.), comb. nov. *Rhynchospora spicata* Spreng. Syst. 1: 194. 1825. *Scleria pleostachya* Kunth, Enum. 2: 355. 1837.

According to Weberbaur this Brazilian species has been found in the Sandia Valley, Dept. of Puno, Peru.

2. NEW CAPERS FROM PERU

Gynandropsis Herrerae, spec. nov., annua, herbacea, simplex subglabra vel ubique minutissime pulverulento-pubescens; caulibus circa 3 dm. altis; foliis intermediis summisque ternatis, petiolis gracilibus striatis 4-7 cm. longis; foliolis petiolatis ovatis vel ovato-lanceolatis basi cuneatis mediocriter obliquis inaequalibus, apice plus minusve abrupte acutis vel acuminatis submembranaceis plerumque 6-8 cm. longis, 2.5-3 cm. latis; racemis laxifloris ebracteatis vel bracteis caducissimis; pedicellis fructiferis refracto-patentissimis circa 2 cm. longis; laciniis calycinis ovatis acutis circa 3 mm. longis; petalis 10-12 mm. longis, lamina elliptico-spathulata, ungue subaequilongo; staminibus nonnihil vel vix corollam excedentibus; toro incluso tantum 7 mm. longo; siliqua (nondum perfecte matura) lineari-cylindracea utrinque acuta circa 6 cm. longa, thecaphorum pedicello duplo brevius.—PERU: forest, alt. 2—2300 m., near Rio Yanamayo, below "Pillahuata," Dept. of Cuzco, May, 1925, *Francis W. Pennell 14073* (TYPE, Field Museum).

This species is entirely different from any so far recorded from Peru and apparently has no known close relative. The collector recorded the flower as "flesh ocher" in color. It is named for Dr Herrera of the University of Cuzco, the distinguished authority on the plants of the region.

Cleome Figueroae, spec. nov., inermis, subherbacea vel suffrutescens; caulibus striatis subsimplicibus 1-1.5 m. altis glabris vel obscure subadpresse strigillosis; foliis 5-7-sectis utrinque minute pubescentibus cum pilis crispulis vel hispidulis subtus pallidioribus et nerviis prominente purpurascentibus; petiolis 8-10 cm. longis plus minusve strigillosis etiamque cum pilis longioribus parce intermixtis vel subpilosis imprimis ad apicem; foliolis petiolatis ovato-lanceolatis utrinque acuminatis 5-8 cm. longis 1.5-3 cm. latis; racemis elongatis (2.5 dm. plus minusve); bracteis simplicibus suborbiculari-cordatis aliquid scabris; sepalis rotundo-ovatis acutis vix 5 mm. longis; petalis oblongo-ellipticis fere 2 cm. longis; pedicellis fructiferis subreflexis circa 2 cm. longis; siliquis (immaturis) glabris lineari-cylindraceis obscure torulosis circa 6 cm. longis, longe stipitatis; stipes 8 cm. longis.—PERU: Huacachi, near Muña, Dept. of Huanuco, May 20-June 1, 1923, *Macbride 4173* (TYPE, Field Museum).

Probably this species most resembles *C. longifolia* Presl which, however, is described as having lanceolate acuminate sepals and much shorter (4 cm. long) pods. It is named for Reyes Figueroa of Mito, Peru, in recognition of his loyalty and interest while serving as guide on the Captain Marshall Field Botanical Expeditions of 1922 and 1923.

Cleome Herrerae, spec. nov., ut videtur peraffinis *C. longifolia*; caulibus, foliis subtus, petiolisque plus minusve strigillosis; sepalis ovato-lanceolatis, basi haud attenuatis, apice sensim subacuminatis, dense subadpresse strigillosis, 6-7 mm. longis; petalis oblongo-lanceolatis, basi anguste attenuatis, circa 17 mm. longis; ovario glabro; pedicellis fructiferis solum 1.5 cm. longis; siliquis (immaturis) circa 5 cm. longis; stipes 3.5 cm. longis.—PERU: Valle de San Miguel, Cedrobamba, Dept. of Cuzco, 20 de Julio de 1928, *F. L. Herrera 1992* (TYPE, Field Museum).

C. longifolia Presl, Rel. Haenk. 2: 84. 1831, the only Peruvian species to which this beautiful Cleome is closely related, is described as having sepals that are attenuate at the base, petals about 12 mm. long, pedicels 2.5 cm. long and pods about 4 cm. long. It does not seem desirable at this time to regard these differences, definite as they are, as representing merely a variation of this species. Dr. Herrera reports the common name as "Facma."

Cleome limoneolens, spec. nov., *C. chilensis* peraffinis; basi indurato-suffrutescens vel fruticosa, ramosa; caulibus aliquot dm. altis adscendentibus flexuosis mediocriter basi ad apicem dense sordide glanduloso-pubescentibus cum pilis hirsutulis vel crispulis; foliis 5-7-foliolatis utrinque granuloso-glandulosis vel paullo scabridis; petalis tantum 5-6 mm. longis.—PERU: loose soils of river-cañon slopes, San Rafael, Dept. of Junin. April 4, 1923, *Macbride 3145* (TYPE, Field Museum); steep rocky grassland, Huacachi, near Muña, Dept. of Huanuco, May 20-June 1, 1923, *Macbride 4088*.

This may prove to be only a variety of *C. chilensis* DC., which is not uncommon in Peru, but no intermediate plants have been seen. Its shrubby base and small flowers seem, therefore, to be distinctive characters. The plants were noticeably lemon-scented.

Cleome monochroma, spec. nov., subherbacea stricta haud ramosa aliquot dm. (vel 1 m.?) alta; caulibus minute pulverulentis fere basi ad apicem vel plus minusve villosis et parce cum glandulis stipitatis glanduliferis imprimis parti superiori; foliis membranaceis longi-petiolatis (petiolis circa 1.5 dm. longis) 7-foliolatis utrinque molliter subadpresse strigillosis; foliolis oblongo-ellipticis vel oblongo-lanceolatis utrinque attenuatis,—apice acuminatis basi extenuato-cuneatis—sessilibus plerumque circa 8-12 cm. longis 2-3.5 latis;

floribus 4 cm. longis plus minusve villosis et parce glandulosis ut videtur sepalis petalisque albo-viridibus; sepalis anguste linearibus-acuminatis 2-2.5 cm. longis; petalis paullo latioribus subobtusis; pedicellis fructiferis 4-5 cm. longis; stipes 5-6 cm. longis siliquiis obscure puberulis pendulis vel suberectis anguste oblongo-cylindraceis 10-14 cm. longis fere 1 cm. latis basi subacutis apice acuminatis.—PERU: sandy trail edge, La Merced, Dept. of Junin, Aug. 10-24, 1923, *Macbride 5386* (TYPE, Field Museum). COLOMBIA: Rio de la Honda near Arbelaez, Feb. 19, 1876, *Ed. André 1589*. MEXICO: Misantla, Vera Cruz, Aug., 1912, *Purpus 5873*.

No Peruvian species resembles this unusually well-marked Cleome. Its strict habit, large greenish flowers with linear sepals and petals, and long oblong-clavate pods are characteristics that combined make it most distinctive. Yet I have not been able to find a name for it—and the material cited from Colombia and Mexico was distributed unnamed.

Cleome eosina, n. nov. *C. microcarpa* Hass. Rep. Spec. Nov. **12**: 254. 1913, not *C. microcarpa* Ule, Bot. Jahrb. **42**: 201. 1908.

Since there is already a *Cleome Hassleriana* this Paraguayan species may be called *eosina* as it suggested to its author several species, *C. affinis* DC., *C. diffusa* Banks and *C. aculeata* L.

Capparis Schunkei, spec. nov., arbor parva; ramulis glabris; foliis submembranaceis fortiter reticulato-venosis ellipticis vel oblongo-ellipticis plerumque circa 15 cm. longis et 5 vel 6 cm. latis, apice subabrupte breviter acuminatis basi subcuneatis, petiolatis (petiolis circa 1.5 cm. longis), supra glabris (vel juventute minute stellato-pubescentibus) lucidis, subtus ramulisque inflorescentiis obscure subferrugineo-stellato-pubescentibus; racemis ramosis aliquid paniculatis foliis brevioribus paucifloris; pedicellis gracilibus 1.5-2 cm. longis; bracteis minutis caducissimis; calycibus petalisque mediocriter externe fulvo-pubescentibus cum pilis stellatis; sepalis oblongo-lanceolatis subacutis reflexis 3 mm. longis; squamulis circa 1 mm. longis; petalis late ovatis subobtusis 5 mm. longis; staminibus circa 20 pistilloque longe exsertis; ovario ovoideo glabro.—PERU: Chanchamayo Valley, Dept. of Junin, 1924-1927, *Carlos Schunke 418* (TYPE, Field Museum); Hacienda Schunke, La Merced, *Macbride 5701*.

No species of the subgenus *Colicodendron*—to which this plant belongs—appears to approach *C. Schunkei* except possibly *C. lepidota* (Turcz.) Knuth of Venezuela from which it differs in character of pubescence, shape of leaves and number of stamens. In foliage only it suggests two glabrous Peruvian species, *C. laurina* HBK. and *C. Sprucei* Eichl. both of which, however, belong in another subgenus.

C. Schunkei is a small tree with spreading branches and pale greenish-yellow flowers. It is named with pleasure for the collector whose hospitality I enjoyed when on the Captain Marshall Field Botanical Expedition to Peru in 1923.

3. SOME PERUVIAN ANNONACEAE WITH A NEW GUATTERIA

Guatteria Rusbyi, nom. nov. *G. lucida* Rusby, Mem. N. Y. Bot. Gard. 7: 245. 1927, not *G. lucida* Presl, Rel. Haenk. 2: 78. 1831.

This recently described species from Bolivia may appropriately bear the name of the author who evidently overlooked the much earlier use of the term *lucida* for a distinct Peruvian species.

Guatteria pachypetala (Diels), comb. nov. *Oxandra pachypetala* Diels, Notizb. 10: 173. 1927.

If one may judge from the original characterization, this Peruvian tree is a *Guatteria* rather than an *Oxandra* because it has "stamina numerosa" and "connectivum vix productum." According to all authorities, even including Engler and Diels, Notizb. 3: 49. 1900, *Oxandra* has few (6-18) stamens and the connective is produced above the anther. If these characters do not "hold," *Oxandra* can hardly be maintained as a distinct genus.

Guatteria socialis, spec. nov., liana; ramulis foliisque glabris; foliorum petiolo prope 1 cm. longo supra nonnihil sulcato crasso, lamina chartacea oblongo-vel ovato-elliptica plerumque circa 15 cm. longa 4-7 cm. lata utrinque sensim angustata vel apice subabrupte acuminata (acumine subobtusato) supra pallide-glauca nitidula subtus viridi-nitidiore, nervis lateralibus primariis utrinque 9-11 angulo acuto adscendentibus subprominulis, venis reticulatis prominulis; pedunculis glabris solitariis axillaribus subgracilibus 2.5-3 cm. longis, basi squamuloso-bracteolatis vix articulatis vel medio quandoque unibracteolatis; bracteolis minute ciliatis; sepalis orbiculari-ovatis subacutis solum minutissime ciliatis; petalis glabris ut videtur subaequalibus subovatis vel oblongo-ellipticis circa 12 mm. longis, 6-8 mm. latis; baccis ignotis.—PERU: Dept. Junin, Chanchamayo Valley, 1500 m., Oct. 1924-27, *Carlos Schunke 395* (TYPE, Field Museum).

This was noted in the field by the observant collector to be a liana and apparently is only the second scandent Guatteria to be recorded. *G. scandens* Ducke has pubescent flowers. Dr. Diels has described a climbing Annona (*A. scandens* Diels). In addition to the habit this species seems to differ in size and shape of leaves, elongate

peduncles, etc., from the comparatively few Guatterias with completely glabrous foliage and flowers. Its relationship may be with *G. jurensis* Diels.

Fusaea rhombipetala (R. & P.), comb. nov. *Anona rhombipetala* R. & P. ex G. Don, Gard. Dict. **1**: 87. 1831.

Safford has recently established the genus *Fusaea*, Contrib. U. S. Nat. Herb. **18**: 64. 1914, and evidently for the most excellent reasons. He has also indicated that the Peruvian species cited above is in fact a Fusaea rather than an Annona but he did not make the transfer.

Duguetia odorata (Diels), comb. nov. *Aberemoa odorata* Diels, Notizb. **10**: 171. 1927.

Duguetia pedunculata (Diels), comb. nov. *Aberemoa pedunculata* Diels, Bot. Jahrb. **37**: 409. 1906.

Duguetia peruviana (R. E. Fries), comb. nov. *Aberemoa peruviana* R. E. Fries, Kgl. Sv. Vet. Akad. Handl. 34, no. 5: 22, pl. 3, fig. 1-3. 1900.

Duguetia St. Hil. Fl. Braz. Mer. **1**: 35. pl. 7. 1825 is "conserved" according to the International Rules of Botanical Nomenclature in place of *Aberemoa* Aubl. Pl. Guian. **1**: 610. 1775. There seems always to have been some question, however, as to the generic identity of Aublet's plants with St. Hilaire's, and Safford has recently pointed out (Contrib. U. S. Nat. Herb. **18**: 60-61. 1914) that they can scarcely be congeneric. The use of the name *Aberemoa*, therefore, should remain restricted to the original and very imperfectly known species *A. guianensis* Aubl.

4. NEW AND RENAMED PERUVIAN MELASTOMES

Ernestia Sprucei (Cogn.), comb. nov. *E. tenella* (Bonpl.) DC., var. *Sprucei* Cogn. Bull. Acad. Belg. 3. **14**: 929. 1887.

Cogniaux described this plant, to distinguish it from typical *E. tenella*, as a branched shrub 1.5-2 m. high with purple flowers and densely setose (at apex) ovary. These characters seem to me specific: *E. tenella* is subherbaceous or woody below, 0.5 m. high and has white flowers and a scarcely puberulent ovary.

Brachyotum callosum, spec. nov., fruticosum 0.5-1.5 m. altum, dense ramosissimum; ramis teretibus flexuosis adpresse setulosis inferne demum glabratis; ramulis dense subadpresse setulosis plerumque 1 dm. longis; foliis valde approximatis 3-nerviis oblongo-

ellipticis utrinque obtusis 8-10 mm. longis, 4-5 mm. latis subplanis vel mediocriter revolutis; petiolis (circa 1 mm. longis) foliisque subtus adpresse denseque setulosis, supra callis conicis apice breviter setiferis dense onustis; floribus pedunculatis plerumque ternis 5-meris (semper?) breviter pedicellatis; bracteis tarde deciduis; calycis tubo conico vel anguste campanulato parce adpresseque strigoso circa 8 mm. longo, lobis triangulari-ovatis acutis circa 5 mm. longis; petalis late obovatis circa 12 mm. longis plus minusve breviter ciliatis; antheris oblongo-linearibus, connectivo brevissime elongato *non* tuberculato.—PERU: in scattering hillside thickets, 15 miles northeast of Huanuco, June 12-22, 1922, *Macbride & Featherstone 2181* (TYPE, Field Museum).

This species is a member of the section *Adesmiae* and apparently is most nearly related to *B. Trianaei* Cogn. Melast. 167. 1891, notwithstanding it 5-merous flowers. It can be distinguished from Cogniaux's plant by the entirely different pubescence of the leaves and calyx. In some respects it resembles both *B. lutescens* (R. & P.) Triana and *B. microphyllum* Triana but the pubescence of the former is hispid and strigose and that of the latter sparsely strigose and setulose. In most if not all species of *Brachyotum* the flowers may be either 4- or 5-merous. For instance, *B. lutescens* was described as sometimes 5-merous and so are my Peruvian specimens. *B. callosum* therefore will probably be found to vary in the same way. Its flowers (apparently yellowish) were not fully grown so the petals may become longer than described.

Brachyotum Figueroae, spec. nov., fruticosum, circa 1 m. altum; ramis gracilibus tarde glabratis ut videtur 2-3 dm. longis; ramulis mediocriter approximatis plerumque 1 dm. longis dense subadpresseque hirsuto-setulosis; petiolis foliisque subtus dense hirsutis, foliis supra crassis conicis apice setiferis dense tuberculatis, late ovatis subplanis circa 9 mm. longis, 5-6 mm. latis; floribus breviter pedunculatis solitariis vel 3-4, 4- vel 5-meris; calycis rubescentibus sparse setulosis, tubo plus minusve anguste campanulato circa 1 cm. longo, lobis ovatis circa 4 mm. longis; petiolis rotundato-obovatis breviter ciliatis circa 12 mm. longis; connectivo non producto antice brevissime 2-tuberculato.—PERU: stream bank, Catuc, pueblo 15 miles east of Huaraz, Dept. of Ancash, Oct. 4, 1922, *Macbride & Featherstone 2504* (TYPE, Field Museum).

Only two other species of the section *Dicentrae* seem to be closely related to this, namely *B. Maximowiczii* Cogn. and *B. rosmarinifolium* (R. & P.) Triana. *B. Figueroae* may be distinguished from the former of these by its much shorter calyx-lobes in proportion to the tube and whitish flowers, and from the latter by the broadly ovate leaves that are hirsute rather than setulose beneath, as well as by the color

of the flowers and proportionately shorter calyx-lobes. It is named for Reyes Figueroa, my helpful companion on many collecting journeys in 1922 and 1923.

Brachyotum tyrianthinum, spec. nov., fruticosum, 1-2 m. altum, solum mediocriter ramosum; ramis gracilibus glabris paullo vel haud excoriatibus; ramulis petiolis foliisque supra plus minusve dense adpresse setulosis; petiolis circa 3 mm. longis; foliis ovatis plerumque 2 cm. longis et circa 1 cm. latis, 3-nerviis, subtus parce hirtello-setulosis; floribus solitariis cernuis 4-meris (semper?) violaceo-purpureis; calycis tubo adpresse setulosis campanulato 7 mm. longo, lobis parce setulosis oblongo-lanceolatis circa 1 cm. longis; petalis subrotundato circa 15 mm. longis minute ciliatis; connectivo obscure vel breviter tuberculato.—PERU: slender rather open bush on shrubby southwestern slope, Mito, Dept. of Huanuco, July 8-22, 1922, *Macbride & Featherstone 1438* (TYPE, Field Museum).

This species, definitely referable to the section *Dicentrae*, apparently resembles both *B. Grisebachii* Cogn. and *B. Naudinii* Triana. It differs from the former in its ovate rather than oblong leaves and in its shorter and broader petals. The longer leaves and calyx-lobes and rounded petals separate it from the latter. The pubescence on the upper leaf-surfaces is peculiar in that each bristle emanates from an elongate callous that scarcely exceeds the bristle in width and is attached to or is a part of the leaf-surface.

TIBOUCHINA LONGIFOLIA (Vahl) Baill., var. **simulans**, var. nov., foliis interdum 7-nerviis; sepalis plus minusve setoso-glandulosis; petalis basi ad apicem valde ciliatis; connectivo basi breviter producto.—PERU: La Merced, Dept. of Junin, Aug. 10-24, 1923, *Macbride 5300* (TYPE, Field Museum); Pozuzo, Dept. of Huanuco, June 10-22, 1923, *Macbride 4556*.

I should be inclined to describe this variant as a new species were it not for the apparent variability of *T. longifolia* and the fact that the numerous segergates based on relative length of connective and character and degree of pubescence when better known will very likely be found to represent extremes only in different directions of variation. The above variety resembles also *T. stenopetala* Cogn. except that the petals are not narrowed at base.

Tibouchina pleromoides (Naud.), comb. nov. *Lasiandra pleromoides* Naud. Ann. Sci. Nat. 3. 13: 131. 1850. *Pleroma maurocarpum* Triana, Trans. Linn. Soc. **28**: 47. 1871. *Tibouchina maurocarpa* (Triana) Cogn. Melast. 260. 1891.

Aciotis cordata (Vell.), comb. nov. *Melastoma cordata* Vell. Fl. Flum. 178. 1825 et Ic. 4: tab. 114. 1827. *Spennera dysophylla* Benth. Journ. Bot. 2: 296. 1840. *Aciotis dysophylla* (Benth.) Triana, Trans. Linn. Soc. 28: 52. 1871.

Triana, l.c.151, refers the plant of Velloso to that of Bentham without question and as it is the earlier known its name may be used.

Monochaetum canescens (Bonpl.), comb. nov. *Rhexia canescens* Bonpl. Rhex. 47. tab. 18. 1823. *R. Bonplandii* Kunth in index, Rhex. *M. Bonplandii* (Kunth) Naud. Ann. Sci. Nat. 3. 4: 51. tab. 2. f.1B. 1845.

Monochaetum subditivum, spec. nov., *M. dicranantherum* peraffine; petiolis plerumque 8-10 mm. longis; foliis anguste ovatis 3-4 cm. longis circa 1.5 cm. latis, apice mediocriter attenuato-acutis, 5-plinerviis; cymis axillaribusque terminalibus, 2-4-floris; calyce setis patulis elongatis plerumque glandulosis hirsuto; lobis oblongo-lanceolatis definite acutis; staminibus minoribus caudatis caudis linearibus antheris paullo brevioribus.—PERU: an open 3-4 ft. shrub of montaña slopes. Villcabamba, hacienda on Rio Chinchao, Dept. of Huanuco, July 12-26, 1923, *Macbride 5194* (TYPE, Field Museum).

This typical species of *Monochaetum* on casual observation would readily pass for *M. dicranantherum* (R. & P.) Naud. but careful examination discloses a number of differences that make its reference to the latter unsatisfactory. The calyx-hairs are nearly all tipped with a gland; otherwise the pubescence is exactly that of *M. dicranantherum*. Also the leaves are longer and more gradually acute, and the appendage of the smaller anthers almost equals the anther in length. These differences may be found to be relative but at present there is no evidence to this effect.

M. subditivum bears some resemblance to *M. villosum* Gleason, Bull. Torr. Club, **52**: 335, but the leaf-pubescence of the latter is evenly distributed over the upper surfaces. In both *M. dicranantherum* and the species proposed here it is confined to lines between the veins. There is also a difference in the relative size of the smaller anthers and their appendages. Two other species that are related are at once distinct because of their 7-nerved leaves, namely *M. pauciflorum* Triana and *M. glanduliferum* Triana.

Marshallfieldia, gen. nov. Flores 5-meri. Calycis tubus infundibulariformi-campanulatus; limbus brevis, haud dilatatus, subsimplex, lobis rotundatis. Stamina valde inaequalia filamentis distincte alatis; maiorum antherae tenues, apice arcuatae, anguste uniporosae;

minorum antherae haud rostratae, obtusae, rectae. Connectivo infra loculus non producto, antice inappendiculato, postice processu elongato fere erecto apice biaristato instructo. Ovarium liberum. —Frutices scandentes vel ut videtur sarmentosi vel pseudoparasitici. Folia petiolata, 5 nervia. Flores mediocres, in racemos (vel paniculas?) paucifloros terminales depositi.—Affinis videtur *Merianiae*.

Marshallfieldia corallina, spec. nov., scandens; ut videtur caule indiviso flexuoso dense rufo-villoso; foliis late ovalibus vel rotundis, basi rotundatis, apicem versus sensim angustatis, acutis, membranaceis, supra primo leviter villosis imprimis ad nervos demum glaberrimis, subtus mediocriter dense rufo-pilosis praecipue ad nervos, circa 11 cm. longis et 8 cm. latis; petiolis etiam dense rufo-villosis, 2-2.5 cm. longis; floribus 2 vel 3, breviter pedicellatis ad apicem ramorum subcongestis; calycis tubo parce adpresse villoso-setosis vel subglabris, basin versus cuneatim angustato, angusto, circa 5 mm. longo, limbo non dilatato, lobis rotundatis, abrupte acutis, margine tenuiter membranaceis minute serrulatis, circa 1.5 mm. longis; petalis oblongo-obovatis, circa 12 mm. longis, 6 mm. latis; staminibus valde inaequalibus; filamenta maiorum 9 mm. longa, antherae fere 8 mm. longae, appendices circa 3 mm. longae; minorum filamenta fere 11 mm. longa, antherae et appendices 4.5 mm. longae; ovario glabro, stylo 8 mm. longo.—PERU: climbing a tree-trunk, Hacienda Schunke, La Merced, Dept. of Junin, Aug. 27-Sept. 1, 1923, *Macbride 5642* (TYPE, Field Museum).

This interesting new genus of the *Melastomaceae* was collected on the second of the botanical expeditions to Peru sponsored by Captain Marshall Field. It is an attractive plant with creeping stem and somewhat fan-shaped leaves densely covered on the under side with soft rusty-red hairs. The upper leaf-surface is dark green and smooth. The flowers are a coral-pink with yellow anthers.

Marshallfieldia is not satisfactorily referable to any of the tribes of its family as these have been characterized by Cogniaux in his monograph, Melast. 1891. Although only flowering material is known it appears to be allied to the *Merianiae* in which, however, there are no genera with very unequal stamens. Notwithstanding the unequal stamens its generic relationship is apparently with *Adelobotrys* which it resembles in habit and foliage and exactly matches in character of the anther-appendages but its calyx is lobed like that of some species of *Meriania*.

Meriania Weberbaueri, spec. nov., arbor 8 m. alta; ramis ad nodos satis incrassatis plus minusve obscure tetragonis dense furfuraceo-puberulis vel demum fere glabris; foliis late ovalibus vel elliptico-ovatis, obtusis, basi aliquid attenuatis, margine inferne integerrimis superne valde repando-serrulatis, circa 2 dm. longis,

1 dm. latis (superioribus multo reductis) submembranaceis supra glabris, subtus minute denseque pubescentibus cum pilis stellatis et pilosis intermixtis, 7-plinerviis; nervis mediocriter prominentibus; nervulis transversalibus subtus tenuissime ramuloso-reticulatis; cymis paucifloris; calycis lobi triangulares, tubo aequales vel longiores, dentibus exterioribus vix 3 mm. longis; tubo dense furfuraceo-puberulis, campanulato 6 mm. longo, superne 8 mm. lato, obscure costato distincte tuberculato, limbo haud dilatato; petalis roseis late obovatis circa 2 cm. longis; staminibus magnis, antheris valvis valde crispato-undulatis, connectivo basi valde incrassato, in appendicem brevem minute bilobatam producto.—PERU: valley of the Rio Masamerich, tributary of the Rio Pangao, Dept. of Junin, May 7, 1913, *Weberbauer 6659* (TYPE, Field Museum).

This beautiful species, although clearly a member of the section *Umbellatae*, is not closely related to any of the known species. Its stamens resemble most those of the otherwise entirely different *M. speciosa* (Bonpl.) Naud. except that the shorter appendages are shortly bilobed instead of acute and hooked.

Macrocentrum peruvianum (Cogn.), comb. nov. *M. fasciculatum* (DC.) Cogn., var. *peruvianum* Cogn. Bot. Jahrb. **42**: 138. 1908.

This simple-stemmed procumbent plant with fruiting calyces nearly 1.5 cm. long can scarcely be regarded as only a variety of *M. fasciculatum* (DC.) Cogn. which is known only from French Guiana and is an erect branched herb with much longer petioles and leaves and much shorter—only 6 mm. long—fruiting calyx.

Tococa undabunda, spec. nov., fruticosa circa 1.5 m. alta, macrophylla, anisophylla; ramis subteretiusculis plus minusve setulosis demum glabris; ramulis flexuosis petiolisque undique dense setulosis, setis elongatis, rigidis, patentibus; foliis longe petiolatis, elliptico-ovatis basi subrotundatis vel quandoque leviter attenuatis apice subabrupte attenuato-acuminatis vel caudatis, margine obscure undulatis et longiuscule satis denseque ciliatis, 5-nerviis, supra parce subadpresseque setulosis subtus ad nervos subdense hirtellis caeterum glabris, majoribus plerumque 2-2.5 dm. longis et 1-1.4 dm. latis, in petiolo vesiculiferis, minoribus aliquando vescicula destitutis; vesicis ut videtur ovoideis; nerviis subtus et supra prominentibus, nervulis transversalibus ubique insigne undulatis, subtus ramuloso-reticulatis; petiolo (in foliis majoribus) 5 vel 6 cm. longo; capitulis terminalibus circa 30- vel 40-floris breviter pedunculatis; floribus sessilibus ebracteolatis; calyce inferne papilloso, superne parce setuloso, tubo oblongo-campanulato circa 5 mm. longo distincte 5-lobato, lobis late ovatis longe setulosis; petala ut videtur alba, immatura.—PERU: open shrub of montaña slope, Hacienda Schunke, La Merced, Dept. of Junin, Aug. 27-Sept. 1, 1923, *Macbride 5734* (TYPE, Field Museum).

Only a few species of *Tococa* have sessile flowers borne in a capitate inflorescence. Of these *T. undabunda* most suggests *T. spadiciflora* Triana, Trans. Linn. Soc. **28**: 132. 1871 because of the position of the vescicles on the petioles although that species has 5-plinerved leaves and bracteate flowers. If the occurrence of vescicles is disregarded our plant appears to be more nearly related to other species from all of which it is readily distinguished by characters of pubescence, leaves, petioles and calyx. The calyx-pubescence was pink. Sometimes but not usually the leaves beneath the inflorescence are greatly reduced to nearly linear long-acuminate bracts. The name refers to the flexuous branchlets, wavy leaf-margins and cross-veins.

Blakea Sawadae, spec. nov., fruticosa 2 m. alta; ramis teretibus vel obtuse subtetragonis; foliis 5-nerviis oblongo- vel ovato-ellipticis, basi plus minusve acutis, apice subacutis et abrupte caudato-acuminatis, plerumque 1.5 dm. longis et 7 vel 8 cm. latis, mediocriter coriaceis, supra glabris sub lente minute denseque puncticulatis, subtus ad nervos nervulosque leviter furfuraceis, caeteris glabris; petiolis robustis vix furfuraceis 2-3 cm. longis; floribus 2-4-fasciculatis subsessilibus 3 cm. latis; pedicellis 2-5 mm. longis; bracteis valde inaequalibus, exterioribus base definite connatis, dense furfuraceis ovatis longe acutis inferne dorso carinatis, 1-1.5 cm. longis, interioribus subrotundatis fere glabris vel satis furfuraceis setoso-ciliatis circa 1 cm. longis; calyce subglabro 12-17 mm. longo, tubo campanulato, limbo regulariter 6-lobato, lobis ovatis apice dilatatis subobtusis; petalis albis subrotundalis circa 1 cm. longis; antheris dolabriformis caeruleis.—PERU: open shrub in hillside thickets, Pampayacu, Dept. of Huanuco, July 19-25, 1923, *Macbride 5058* (TYPE, Field Museum).

This species appears to be most nearly related to *B. caudata* Triana, Trans. Linn. Soc. **28**: 148. 1871, from which it notably differs, especially in its acutish leaves, longer petioles, shorter pedicels and regularly lobed calyx. Its fleshy white flowers with contrasting blue anthers were very attractive. Its name commemorates fittingly the hospitality and aid in collecting extended by Mr. Masaho Sawada of Huanuco, at the hacienda at Pampayacu.

Blakea chanchamayensis, spec. nov., fruticosa-liana; ramis teretibus junioribus dense rubiginoso-furfuraceis demum glabris; foliis 5-nerviis oblongo ellipticis basi apiceque gradatim attenuatis, apice acuminatis plerumque circa 1.5 dm. longis et 5 vel 6 (-7) cm. latis, chartaceo-subcoriaceis, supra glabris, subtus ad nervos paullo furfuraceis vel demum glabris; petiolis mediocriter gracilibus 2-2.5 cm. longis; floribus solitariis vel 2, subsessilibus; pedicellis 2-3 mm. longis; bracteis subaequalibus, exterioribus basi leviter connatis plus

minusve dense furfuraceis fere rotundatis subabrupte acutis circa 1 cm. longis; interioribus fere glabris circa 8 mm. longis; calyce glabro circa 1.5 cm. longo, tubo campanulato, limbo valde 6-lobatis, lobis late ovatis subacutis; floribus ignotis.—PERU: Hacienda Schunke, La Merced, Dept. of Junin, Aug. 27-Sept. 1, 1923, *Macbride 5676* (TYPE, Field Museum); Chanchamayo Valley, Dept. of Junin, Dec. 1924-1927, *Carlos Schunke 299*; also Oct., *438*.

This plant may be either a *Topobea* or a *Blakea*, so far as can be determined from the fruiting material available. It seems unlikely, however, that it is referable to the former genus since it most nearly approaches in appearance two species of the latter, namely *Blakea caudata* Triana and *B. Holtonii* Hochr. It differs from the former in the narrower gradually acuminate leaves and the subsessile flowers and from the latter in the 5-nerved leaves and subsessile flowers.

Blakea incerta, spec. nov., *P. Spruceana* peraffinis; ramis glabris vel paullo furfuraceis et setulosis ad nodos; foliis inconspicue 7-nerviis; nervis mediano multo crassiore, 2 exterioribus submarginalibus vix distinctis; petiolis 1.2-2.5 cm. longis; pedicellis axillaribus binis gracilibus 12-18 mm. longis; bracteis subrotundatis haud acutis demum glabris 12-15 mm. longis; calycis lobis late ovatis 4-5 mm. longis; petalis roseis vix 1.5 cm. longis.—PERU: forest shrub or tree 5-7 m. high, Cushi, Dept. of Huanuco, June 19-23, 1923, *Macbride 4850* (TYPE, Field Museum).

Except for the fact that the flowers are borne in twos this specimen matches well the plate of *B. Spruceana* Cogn. Fl. Bras. 14[4]: 560. tab. 121. f.I. 1888. However, besides the disagreement in the the number of flowers, *B. incerta* departs from the description of *B. Spruceana* in a number of ways: the leaves, although indistinctly are actually 7-nerved, the petioles average longer, the pedicels are shorter, the bracts are not at all acute and the calyx-lobes are longer. It approaches *B. latifolia* (R. & P.) D. Don in some respects but is at once distinct by its terete calyx-tube.

Miconia Wagneri, spec. nov., arbuscula foliosa 1.5-2.5 m. alta vel interdum arbor; ramulis petiolis pedunculisque pilis longiusculis adpressis inferne simplicibus apice stellato-multifidis submolliter denseque fulvo-pubescentibus; foliis membranaceis integerrimis vel remote calloso-repando-denticulatis, late ovato-ellipticis, basi apiceque sub- vel rotundatis vel apice acutis, 1.5-2.5 dm. longis, 8-12 cm. latis, nervulo obscuro marginali praetermisso valde 5-nerviis, supra glabris paullo nitidulis, nervis mediocriter prominulis, subtus ad nervos dense, caeteris parce, stellatis, nervis cum nervulis transversalibus prominentibus, venis conspicue ramuloso-reticulatis; petiolis 1.5-2 cm. longis; pedunculis mediocribus plerumque 1 dm.

longis; floribus sessilibus ad apices ramulorum plus minusve glomerulatis vel interdum solitariis vel axillaribus, 4-meris; calycis tubo primum minute stellato demum glabro circa 1.5 mm. longo, limbo chartaceo in prima juventute clauso, in anthesi irregulariter lacero; petalis viridibus fere 2 mm. longis, oblongo-obovatis; antheris, sublinearibus superne paullo attenuatis, apice minute 1-porosis, basi postice brevissime calcarato, solum 1.5 mm. longis; stylo 5 mm. Dept. of Junin, Aug. 27-Sept. 1, 1923, *Macbride 5718* (TYPE, Field Museum); Chanchamayo Valley, Dept. of Junin, Dec., 1924-1927, *Carlos Schunke 355*.

Only one other species of the section *Laceraria* has 5-nerved leaves, namely *M. Duckei* Cogn. and it has 5-merous flowers and a densely hirtellous calyx. In other respects *M. Duckei* seems, from description, to resemble *M. Wagneri*.

This interesting species is named for Mr. William Wagner of Lima whose hospitality enabled me to make extensive collections in the vicinity of his delightful hot springs resort at Viso, Peru.

Miconia Adrieni, spec. nov., arbuscula usque 2 m. alta, fere glaberrima; ramulis flexuosis, plus minusve sulcatis, subacute tetragonis, superne (etiam petiolis paniculisque) praecipue ad nodos minutissime parceque squamuloso-furfurascentibus; foliis subchartaceis utrinque glabris ellipticis vel oblongo-ellipticis, ut videtur apice attenuatis et acutis, basi satis angustatis, in petiolum brevem decurrentibus, 14-18 cm. longis, 5.5-7.5 cm.l atis, definite 3-plinerviis; nervis supra mediocriter conspicuis, subtus cum nervulis transversalibus prominentibus, 3 interioribus circa 1 cm. supra basin folii abeuntibus, 2 lateralibus exterioribus a basi; petiolis 1-2.5 cm. longis; paniculis plus minusve foliosis fere 1.5 dm. longis, ramulis acute tetragonis; floribus subsessilibus, 5-meris; calyce 4 mm. longo acute lobato; petalis albis, circa 4 mm. longis; antheris 1-porosis, vix 3 mm. longis, paullo attenuatis, anteriore minute bituberculatis; stylo circa 5 mm. longo, superne leviter incrassato; stigmate capitellato.—PERU: clump shrub at sunny edge of hillside thicket, Pampayacu, Dept. of Huanuco, July 19-25, 1923, *Macbride 5077* (TYPE, Field Museum).

This showy-flowered member of the section *Eumiconia* belongs to the group of species typified by *M. prasina* (Sw.) DC. and appears to resemble most *M. juruensis* Pilger. The latter, however, is a tree 15 m. high with much smaller leaves that are very shortly 3-plinerved, and with longer anthers and style.

M. Adrieni is named for M. Paul Adrien of the Huaron Mining Company of Shelby, Peru whose friendly aid in my collecting work, together with that of his associates, M. Marcel Tuillier and Mons. André Porret and Auguste Berrier so abundantly merits this mention and recognition.

MICONIA NERVOSA (Sm.) Triana, var. **mediana**, var. nov., foliis longe petiolatis, inferne longe attenuatis; petiolis 2-4 cm. longis; petalis albis.—PERU: open 2 m. bush of montaña, Hacienda Schunke, La Merced, Dept. of Junin, Aug. 27-Sept. 1, 1923, *Macbride 5811* (TYPE, Field Museum); 3 m. shrub, La Merced, Aug. 10-24, 1923, *Macbride 5507*.

The widely distributed typical form of this well-marked species has subsessile leaves with the petioles often only 0.5 cm. long, and red flowers. The specimens cited are intermediate in leaf-character between *M. nervosa* (Sm.) Triana and *M. pseudo-nervosa* Cogn. and suggest that the latter also should be treated as a variety of the former. *M. pseudo-nervosa* differs from *M. nervosa* chiefly in its long-petioled leaves that are obtusish at base. Its flowers are white.

Miconia Malatestae, spec. nov., robusta, parce ramosa, 3 m. alta, fere glaberrima; ramis obtuse tetragonis, superne sulcatis glabris vel minutissime furfuraceis, ad nodos firme annulatis; foliis glabris, carneo-coreaceis intense viridibus supra subnitidulis, in sicco flavescentibus, integerrimis vel obscure et remote ciliato-denticulatis, oblongo- vel ovato-ellipticis, obtusis vel breviter acutis, basi satis attenuatis et in petiolum brevem crassum decurrentibus, interdum valde disparis, plerumque circa 2 dm. longis et 1 dm. latis, nervulo marginali praetermisso 3-nerviis; nervis supra vix notatis subtus valde conspicuis sed nervulis transversallibus non prominulis; petiolis crassis, 1.5-2 cm. longis; paniculis late pyramidatis 1-2 dm. longis; floribus brevissime pedicellatis, 5-meris; calyce glabro breviter acute lobato circa 4 mm. longo; petalis albis late obovatis 3 mm. longis; staminibus 4.5 mm. longis; antheris linearibus ut videtur 1-porosis, basi breviter bituberculatis fere 3 mm. longis; connectivo infra antheram circa 1 mm. producto; stylo circa 5 mm. longo; stigmate peltato; ovario apice inappendiculata; fructu 6 mm. crasso, purpureo.—PERU: coarse-stalked shrub of montaña, Hacienda Villcabamba on Rio Chinchao, Dept. of Huanuco, July 17-26, 1923, *Macbride 5176* (TYPE, Field Museum).

It is unusual for a species of Miconia to have the anther-connective greatly prolonged but there is no doubt that such is the case here: the filament itself is linear, not tapering, and shorter than the connective. The relationship of *M. Malatestae* may be with *M. stipularis* Naud. or *M. scutata* Gleason (of the section *Amblyarrhena*) which it resembles vegetatively but its anthers are more nearly characteristic of the section *Eumiconia*. The leaves, or the stamens and ovary of the species mentioned are entirely different from those of our plant.

M. Malatestae is named for Sr. Enrique Malatesta of Huanuco in grateful recognition of the courtesies extended by him to the

members of the Captain Marshall Field Botanical Expeditions to Peru in 1922 and in 1923 particularly when enjoying the hospitality of his Hacienda Villcabamba where this interesting and handsome-foliaged plant was collected.

Miconia modica, spec. nov., arbuscula circa 8 m. alta; ramulis obtuse tetragonis sulcatis, petiolis paniculis calycibusque pilis furfuraceo-stellatis fulvescentibus breviter denseque obtectis; foliis breviter 5-6-plinerviis submembranaceis integerrimis vel obscure remoteque calloso-repando-denticulatis, ovato-ellipticis, basi obtusis vel subrotundatis apice sensim breviter obtuseque acuminatis, plerumque circa 2 dm. longis et 1 dm. latis, supra glabris, nervis non prominentibus, subtus plus minusve fulvo-stellato-furfuraceis praecipue ad nervos nervulosque, nervis cum nervulis transversalibus prominentibus, mediano multo crassiore, 3 interioribus saepius 4-8 mm. supra basin folii abeuntibus, 2-4 lateralibus exterioribus plus minusve distincte a basi; petiolis 4-7 cm. longis; paniculis multifloris; pedicellis 1-2 mm. longis; floribus 5-meris; calyce circa 3 mm. longo; petalis albis, 4 mm. longis, puberulis; filamentis styloque glanduloso; antheris oblongo, haud ventricosis, vix 2 mm. longis; stylo 4-5 mm. longo; stigmate capitellato, 1 mm. lato.—PERU: evergreen forest, Choimacota Valley, Prov. of Huanta, Dept. of Ayacucho, Feb. 28-March 10, 1926, *Weberbauer 7552* (TYPE, Field Museum).

M. floribunda (Bonpl.) DC., to which this species is closely related, has more densely pubescent leaves borne on petioles 2-4 cm. long, longer anthers bulged at the base and a broadly peltate stigma.

Miconia Pulgari, spec. nov., arbuscula, fere glaberrima; ramis glabris, gracilibus, teretibus; ramulis petiolis pedunculisque glabris vel interdum sparse cum pilis crispulis paullo pubescentibus; foliis membranaceis integerrimis vel minutissime adpresseque ciliatis, oblongo-lanceolatis, subabrupte obtuse acuminatis, basi acutis, supra glabris, subtus ad nervos nervulosque parce piloso-hirtellis caeteris glabris, plerumque circa 1 dm. longis et circa 3 cm. latis, 3-plinerviis (nervulo marginali praetermisso); nervis lateralibus exterioribus a basi, interioribus circa 5 mm. supra basin folii abeuntibus, nervis supra vix notatis, subtus cum nervulis transversalibus et venulis bene prominentibus; petiolis 8-10 mm. longis; paniculis densifloris 4-6 cm. longis; floribus 5-meris; pedicellis circa 1 mm. longis; calyce glabro vel minute parceque granuloso-stellato, denticulato, fere 4 mm. longo; petalis late obovatis, circa 2.5 mm. longis; antheris anguste obovoideis, apice paullo arcuatis, minute 1-porosis, circa 1.5 cm. longis; stylo paullo exserto, circa 5 mm. longo, apice subcapitallato.—PERU: Huacachi, near Muña, Dept. of Huanuco, May 20-June 1, 1923, *Macbride 4145* (TYPE, Field Museum).

This straggling shrub with pinkish-white flowers belongs in the section *Amblyarrhena* and somewhat resembles several species but

is entirely distinct by virtue of its triplinerved leaves the few other species having this character being altogether different in other respects. Sr. Francisco Pulgar of Panao, by his friendly interest and influence assisted materially in the successful culmination of the difficult trip to Muña and Pozuzo on which journey this fine bush was collected.

Miconia sphagnophila, spec. nov., arbuscula parce ramosa circa 1 m. alta; ramis ramulis petiolis paniculis foliisque subtus setis longiusculis patulis plerumque basi valde incrassatis dense rufo-pubescentibus; foliis breviter 5-7-plinerviis, rigidis, supra bullis conicis longe setuliferis dense obtectis, ovato-ellipticis, basi rotundatis, apice obtusis vel paullo acutis, plerumque 6 cm. longis et 3.5-4 cm. latis; petiolis 8-10 mm. longis; paniculis confertifloris; floribus subsessilibus, 5-meris; calyce 4 mm. longo; petalis albis circa 2.5 mm. longis; filamentis glanduloso-pilosis; antheris fere 2 mm. longis, minute 1-porosis; stylo peltato.—PERU: sphagnum-montaña, Playapampa, Dept. of Huanuco, June 16-24, 1923, *Macbride 4503* (TYPE, Field Museum).

This species is related to *M. hamata* Cogn., *M. hirta* Cogn. and other allies of *M. capitellata* Cogn. of the section *Amblyarrhena*, from all of which it at least differs in the much longer calyx and smaller leaves. Its pubescence seems to resemble that of *M. radula* Cogn. rather closely but that species has 5-nerved leaves.

Miconia trichrona, spec. nov., ut videtur arbuscula; ramis ramulis petiolisque pilis crispis firmiusculis patulis plus minusve dense obtectis; foliis rigidis tenuissime crenulatis, ovatis vel ellipticoovatis, basi rotundatis, apice aliquid angustatis subrotundatis vel late obtusis, haud acutis, plerumque 8 cm. longis et 4-5 cm. latis, supra bullis crispulis setuliferis, subtus brevissime denseque crispe villoso-hirtellis, 5-7-nerviis; nervis utrinque mediocriter prominentibus; petiolis 1.5-2 cm. longis; paniculis congestifloris circa 7 cm. longis; floribus sessilibus, ad apices ramulorum glomerulatis; calyce breviter denseque setuloso, circa 2 mm. longo, minute denticulato; petalis fere 2 mm. longis; filamentis glabris; stylo 4 mm. longo, parce piloso; stigmate capitellato.—PERU: above Tabaconas, Prov. of Taen, Dept. of Cajamarca, May, 1912, *Weberbauer 6309* (TYPE, Field Museum).

Three members of the section *Amblyarrhena* seem to be about equally related to this species, namely *M. scabra* Cogn., *M. asperrima* Triana, and *M. Ruizii* Naud. *M. trichrona* differs from the first and second in the quality of the pubescence, from the second and third in the obtuse leaves and also from the third in the obscurely lobed calyx.

MICONIA GLABERRIMA (Schlecht.) Naud., var. **australis**, var. nov., foliis basi abrupte obtusis vel subemarginatis; paniculis 3-4 cm. longis, minutissime parceque furfuraceo-puberulis.—PERU: open, 1-2 m. shrub, Hacienda Schunke, La Merced, Dept. of Junin, Aug. 27-Sept. 1, 1923, *Macbride 5769* (TYPE, Field Museum); also *5771*.

Typical *M. glaberrima* (Schlecht.) Naud. of Mexico and Central America has leaves that are acutish or at least somewhat narrowed at base and often a rather large and glabrous panicle. The variety *australis* is not well-marked but in view of its geographic separation its apparent differences seem worth recording.

Miconia Miles-Morgani, spec. nov., arbuscula, 0.5-1 m. alta; ramis gracilibus fere teretibus plus minusve furfuraceo-stellatis demum glabris; ramulis petiolis pedunculisque breviter denseque furfuraceo-stellatis; foliis membranaceis obscure undulato-crenulatis late ovatis vix vel haud acutis, basi rotundatis vel leviter cordatis supra minutissime parceque stellatis vel vetustioribus glabris et plus minusve reticulato-bullatis, subtus subsparse stellatis ad ne vos nervulosque etiam conspicue reticulatis, 5-nerviis, plerumque circa 5 cm. longis et 3 cm. latis; nervis paullo prominentibus praecipue 2 marginalibus; petiolis gracilibus 1-1.5 cm. longis; paniculis anguste pyramidatis circa 8 cm. longis; pedicellis 1 mm. longis; floribus interdum cernuis, 5-meris; calyce fere glabro, obscure denticulato circa 2 mm. longo; petalis albis circa 2 mm. longis; antheris subcuneiformis, late 2-porosis 1.5 mm. longis; stylo 2 mm. longo; stigmate peltato.—PERU: on trail to Tambo de Vaca from Muña, Dept. of Huanuco, June 5-7, 1923, *Macbride 4318* (TYPE, Field Museum).

This attractive bush with fragrant white flowers is closely related to *M. peruviana* Cogn. (Sect. *Cramanium*) but the latter has narrower acute leaves and hirtellous rather than stellate pubescence.

Mr. Miles Morgan of the Cerro de Pasco Copper Corporation and other officials repeatedly aided in the work of the members of the Captain Marshall Field Botanical Expeditions to Peru in 1922 and 1923, and appreciation of their help is recorded gratefully. Mr. Morgan in particular gave generously of his personal time and his interest may be commemorated fittingly in the name of this new species.

Miconia opacifolia, spec. nov., arbuscula circa 3 m. alta, laminis foliorum supra scabris exceptis glaberrima; ramis obtuse tetragonis superne plus minusve sulcatis, subgracilibus; foliis sessilibus membranaceis in sicco supra flavescentibus, subtus aliquanto purpurascentibus, obscure et remote undulato-denticulatis, ovato-oblongis vel -lanceolatis, basi cordatis, apice sensim acuminatis, 1.5-2 dm. longis, plerumque 7 vel 8 cm. latis, 5-7-nerviis; nervis supra leviter

impressis, subtus mediano valde prominentibus, exterioribus caeteris multo gracilioribus; paniculis pyramidatis, circa 1 dm. longis; floribus 5-meris, minutis, brevissime pedicellatis; calyce breviter lobato vix 1 mm. longo; petalis ut videtur albis; antheris obovoideis, 2-porosis, truncatis; stylo incluso.—PERU: Hacienda Villcabamba on Rio Chinchao, Dept. of Huanuco, July 17-26, 1923, *Macbride 5197* (TYPE, Field Museum).

This species belongs to the section *Cremanium* and most resembles *M. lilacina* Triana which has smaller glabrous entire leaves and larger flowers. The leaves of *M. opacifolia*, notwithstanding the minute scabrosity on the upper surface, were velvety in appearance before drying.

Miconia Ottikeri, spec. nov., arbuscula circa 1 m. alta; ramis ramulisque glabris acute tetragonis subquadrialatis; foliis coraceis minute calloso-cilato-denticulatis, ovatis, acuminatis, basi subrotundatis, supra glabris, subtus flavescentibus ad nervos (imprimis mediano) nigro-pilosis caeteris glabris, plerumque circa 7 cm. longis et 3-3.5 cm. latis, definite 3-nerviis, nervulo marginalo fere obsoleto praetermisso; nervis supra leviter impressis, subtus prominentibus, mediano multo crassiore, venis ramuloso-reticulatis in foliis junioribus conspicuis sed demum obsoletis; petiolis 1.5-2 cm. longis, supra cum pilis nigris longiusculis firmis pubescentibus; paniculis anguste laxis circa 1 dm. longis; pedicellis circa 2 mm. longis; calyce glabro, subhemisphaerico, breviter 5-lobato, 3-4 mm. longo; floribus ignotis; bacca rubra, 5-6 mm. crassa.—PERU: Tambo de Vaca, Dept. of Huanuco, June 10-24, 1923, *Macbride 4430* (TYPE, Field Museum).

In spite of the lack of flowers I have little hesitancy in proposing this shrub as a new species because its general characteristics so obviously ally it to *M. flavescens* Cogn. and other members of the section *Chaenopleura*, to none of which, it can be referred. Its sharply angled branches and the curious restriction of the pubescence to the leaf-veins and the petioles are unusual characters for the group.

In naming this neat shrub for Mr. Ottiker, an official of the Ferrocarril Central del Perú, I am recording with pleasure his very welcome aid in the matter of transport from Lima to La Oroya.

Miconia ramosipila, spec. nov., arbuscula vel interdum arbor; ramis superne obtuse tetragonis, sulcatis, plus minusve cum pilis plumosis breviter pubescentibus; petiolis pedunculis ramulisque inflorescentiarum pilis plumoso-penicellatis stellulatisque fulvescentibus intermixtis dense obtectis; foliis integerrimis vel parce adpresseque breviter ciliatis, submembranaceis, supra glabris, nitidulis et obscure bullatis, subtus ad nervos cum pilis fulvo-plumoso-penicellatis dense pubescentibus, ad nervulos transversalibus et etiam caeteris mediocriter fulvo-stellatis, elliptico-ovatis, subabrupte acutis,

basi subrotundatis vel emarginatis, 1.5-2 dm. longis, 8-10 cm. latis, 7-nerviis; nervis supra vix notatis, subtus 5 valde prominentibus, reliquis 2 marginalibus cum transversalibus parum prominulis; petiolis usque 3-7 cm. longis; paniculis anguste pyramidatis, parce ramosis, ramulis spicatis; floribus glomerulatis, 5-meris; calyce glabrato, 5-lobato, vix 1.5 mm. longo; petalis vix 1 mm. longis; antheris minutissme porosis, sublinearibus vix 0.5 mm. longis, connective distincte breviterque producto; stylo 1 mm. longo; stigmate peltato.—PERU: in montaña, trail from Muña to Tambo de Vaca, Dept. of Huanuco, June 5-7, 1923, *Macbride 4321* (TYPE, Field Museum).

Apparently this is a species of the section *Cremanium* and is related in a general way to *M. valida* Cogn. and allies, in spite of the rather narrow anthers. No species of *Eumiconia* seems, from description, to resemble *M. ramosipila* at all closely.

Miconia saxatilis, spec. nov., arbuscula circa 3 m. alta; ramis obtuse, ramulis acute tetragonis, ad nodos incrassatis; ramis ramulis petiolis pedunculis ramulisque inflorescentiarum sordide denseque stellatis; foliis integerrimis vel superne undulato-subdenticulatis late ovato-ellipticis basi et apice subabrupte angustatis, apice etiam breviter acuminatis plerumque 15-18 cm. longis et 7.5-9 cm. latis, membranaceis, supra primum glabris viridibusque, subtus pallide viridibus et etiam tenuiter ad nervos venasque satis stellatis, breviter subtriplinerviis (nervulo marginale praetermisso); nervis lateralibus exterioribus a basi, interioribus 4-8 mm. supra basin folii abeuntibus, nervis interioribus praecipue subtus cum nervulis transversalibus mediocriter prominentibus; petiolis 2-4.5 cm. longis; paniculis densifloris circa 8 cm. longis; floribus minutissimis 5-meris, brevissime pedicellatis; calyce glabrato, obtuse denticulato vix 1 mm. longo; petalis vix 0.5 mm. longis; antheris subcuneiformiis fere 0.5 mm. longis, 2-porosis; stylo circa 1 mm. longo; stigmate peltato.—PERU: wet rocky upland, Playapampa, Dept. of Huanuco, June 16-24, 1923, *Macbride 4881* (TYPE, Field Museum).

This slender shrub with tiny flowers perhaps is most nearly related to *M. micrantha* Cogn. of the section *Cremanium* which, however, has glabrous leaves.

Miconia sulcata, spec. nov., arbor parva tota glaberrima; ramis junioribus acute tetragonis et valde quadrisulcatis, robustis; foliis membranaceis integerrimis vel obscure remoteque repando-denticulatis, ovato-ellipticis, apice subrotundatis obtusis, basi plus minusve sensim attenuatis, ut videtur plus minusve disparis, majoribus 3 dm. longis et fere 1.5 dm. latis, supra viridibus, subtus aliquid purpurascentibus, 5-nerviis; nervis supra haud prominentibus, subtus 3 interioribus valde prominentibus, reliquis 2 marginalibus parum prominulis, nervulis transversalibus gracilibus, ramuloso-reticulatis;

petiolis 5-8 cm. longis; paniculis late pyramidatis, multifloris; floribus minutis, subsessilibus, immaturis ut videtur 5-meris; calyce minute denticulato, circa 1 mm. longo; antheris evidente obovoideis; stylo ut videtur punctiformis.—PERU: Chanchamayo Valley, Dept. of Junin, Jan., 1924-1927, *Carlos Schunke 423* (TYPE, Field Museum).

It may seem unwise to describe as new a Miconia that is only in bud so that the floral characters are not entirely discernible but the anthers are sufficiently developed to enable one to place it in either the section *Cremanium* or *Chaenopleura*. No described species of either section, apparently, has such remarkably sulcate branches, large glabrous leaves and extremely small flowers.

MICONIA THEAEZANS (Bonpl.) Cogn., var. **longifolia** (Cogn), comb. nov. *M. theaezans* (Bonpl.) Cogn., subsp. *viridis* Cogn., var. *longifolia* Cogn. Fl. Bras. **14**[4]: 421. 1888.

MICONIA THEAEZANS (Bonpl.) Cogn., var. **tetragona** (Cogn.), comb. nov. *M. theaezans* (Bonpl.) Cogn., subsp. *flavescens* Cogn., var. *tetragona* Cogn. l. c. 421.

The above variants of this variable species of *Miconia* are better treated, it seems to me, as varieties of the species rather than as varieties of two subspecies. This simpler classification is certainly more practical in ordinary usage whatever its disadvantages, if any, in monographic work.

Miconia trichogona, spec. nov., ramis ramulisque teretibus plus minusve flexuosis ad nodos conspicue setosis caeteris glabris; foliis ovatis obscure denticulatis et subadpresse ciliatis, breviter acuminatis, basi subcordatis, 9-13 cm. longis, 4-5 cm. latis, supra minute parceque scabris et ad nervos plus minusve pilosis, luteo-viridibus, subtus glabris saepius rufescentibus, 5-7-nerviis; petiolis supra sulcatis et dense setoso-pilosis, 1.5-2 cm. longis; paniculis pyramidatis satis multifloris circa 1 dm. longis; pedicellis circa 1 mm. longis; bracteis subscariosis ad apicem ciliatis circa 5 mm. longis; floribus ignotis; calyce distincte 5-lobato; bacca circa 5 mm. crassa.—PERU: in montaña, Hacienda Villcabamba, Rio Chinchao, Dept. of Huanuco, July 17-26, 1923, *Macbride 5178* (TYPE, Field Museum).

There are only a few species of *Miconia* with glabrous branches setose only at the nodes and none of them apparently except *M. setinodis* (Bonpl.) Naud. of the section *Cremanium* approaches our Peruvian species closely and it has 6-8-merous flowers and smaller 3-5-nerved leaves.

Miconia vitiflora, spec. nov., arbuscula, circa 2 m. alta; ramis ramulisque inflorescentiarum obtuse tetragonis vel subteretibus, primum praecipue ad nodos longe plumoso-pubescentibus demum glabris; petiolis plerumque 6-11 cm. longis cum pilis crispulis plumosis

pallide fulvescentibus plerumque 3-5 mm. longis dense pubescentibus; foliis submembranaceis supra intense viridibus, glabris, subtus plus minusve purpurascentibus, ad nervos nervulosque breviter stellato-plumoso-pubescentibus, subrotundatis vel subcordatis, apice abrupte breviter obtuseque acuminatis, plerumque 1.5-2 dm. longis et 1-1.5 dm. latis, 7-nerviis; nervis supra leviter impressis, subtus cum nervulis transversalibus ramuloso-reticulatis prominentibus, mediano multo crassiore; paniculis multifloris, late pyramidatis, circa 1.5 dm. longis; floribus 5-meris, ut videtur subdioicis; pedicellis vix 1 mm. longis; calyce glabro, acute denticulato; petalis vix 1 mm. longis; antheris obovoideis, late biporosis, connectivo breviter producto, antice minute tuberculato; stylo 1 mm. longo; stigmate peltato; bacca fere 4 mm. crassa.—PERU: montaña slope at Hacienda Villcabamba, Dept. of Huanuco, July 17-26, 1923, *Macbride 5165* (TYPE, Field Museum).

Apparently the only species of the section *Cremanium* related to *M. vitiflora* is *M. polygama* Cogn. and it has smaller leaves that are hirsute on both sides.

Miconia brevis, spec. nov., arbuscula tota glaberrima; ramis teretibus vel junioribus obscure tetragonis; foliis subcoraceis obscure crenulato-denticulatis ovato-ellipticis, basi acutiusculis vel obtusis, apice obtusis interdum ad apicem breviter abrupteque angustatis sed haud acutis, plerumque circa 4 cm. longis et 2 cm. latis, 5-nerviis vel subtriplinerviis, nervulo marginali praetermisso; nervis gracilibus supra 3 interioribus satis impressis, 2 exterioribus vix notatis, subtus 3 prominentibus reliquis 2 marginalibus parum prominulis, venis anguste reticulatis; petiolis gracilibus, 1-2 cm. longis; paniculis plus minusve cernuis, 4-5 cm. longis; pedicellis vix 1 mm. longis; calyce obscure 5-denticulato, 2 mm. longo; petalis 5, ut videtur albis irregulariter suborbicularis, vix 2 mm. longis; staminibus 10; filamentis triangularibus, 1.5 mm. longis; antheris late obovoideis, vix 1 mm. longis; stylo glabro, fere 5 mm. longo; stigmate capitellato. —PERU: between Huancabamba and Ayavaca, Dept. of Piura, May, 1912, *Weberbauer 6334* (TYPE, Field Museum).

Other species of the section *Chaenopleura* which most resemble this shrub vegetatively, notably *M. alpina* Cogn. and *M. fruticulosa* Cogn., have 4-merous flowers. *M. brevis* seems to be well-marked, apart from its 5-merous flowers, by its short 5-nerved leaves, short pedicels, calyx, petals and stamens.

Miconia Griffisii, spec. nov., arbuscula satis ramosa et foliosa, 1-1.5 m. alta; ramis teretibus vel superne subtetragonis petiolisque breviter denseque setuloso-hirtellis haud furfuraceis vel stellatis; foliis mediocriter coriaceis integerrimis vel obscure et remote callosociliatis oblongo- vel ovato-ellipticis breviter obtuseque acuminatis vel acutis, basi obtusis vel vix acutis, supra glabris, subtus ad nervos nervulosque parce hirtellis caeteris glabris, plerumque circa 8 cm.

longis et 3-3.5 cm. latis, nervulo marginali praetermisso 3-nerviis; nervis nervulisque supra satis impressis, subtus 3 valde prominentibus, 2 marginalibus vix notatis, nervulis conspicue ramuloso-reticulatis; petiolis 7-12 mm. longis; paniculis densifloris circa 1 dm. longis; floribus 4-meris; pedicellis circa 5 mm. longis; calyce turbinato-campanulato, glabrato, 4 mm. longo, distincte lobato; lobis subrotundatis, extus tuberculatis; petalis albis, suborbicularis, circa 3 mm. longis; antheris obovoideis, circa 1.5 mm. longis; stylo 5-6 mm. longo; stigmate peltato. —PERU: Tambo de Vaca, Dept. of Huanuco, June 10-24, 1923, *Macbride 4382* (TYPE, Field Museum).

The anthers of this species are entirely characteristic of the section *Chaenopleura* no member of which resembles *M. Griffisii* closely unless possibly the poorly described *M. thyrsoidea* (D. Don) Naud. which, however, is said to have tomentose branches, leaves pilose beneath on the nerves and smaller flowers.

This handsome shrub with showy white flowers is named for Mr. C. N. Griffis of Lima the well-known editor and English Secretary to the President. He extended most helpfully the courtesies of the government to the Captain Marshall Field Botanical Expeditions to Peru in 1922 and 1923.

Miconia trichocaula, spec. nov., arbuscula valde ramosa; ramis ramulis petiolisque dense rufo-pubescentibus cum pilis patentibus firmiusculisque 2-3 mm. longis et pilis brevisque furfuraceo-plumosis intermixtis; foliis numerosissimis obscure repando-denticulatis submembranaceis subrotundato-ellipticis haud acutis, supra glabris laevibusque, subtus solum ad nervos paullo furfuraceis, plerumque circa 2 cm. longis et 1.5 cm. latis, 3-nerviis; petiolis 5-8 mm. longis; racemis 1-2 cm. longis, pseudoaxillaribus, paucifloris; pedicellis 2-3 mm. longis; floribus 4-meris, plus minusve cernuis; calyce glabro 4-denticulato, fere 2 mm. longo; petalis suborbicularis vix 1.5 mm. longis; antheris obovoideis; stylo incluso vix 1.5 mm. longo; stigma peltato.—PERU: above Huancabamba, Dept. of Piura, April, 1912, *Weberbauer 6094* (TYPE, Field Museum).

This is an addition to the section *Chaenopleura* and from description is related to *M. bullata* (Turcz.) Triana. The leaves of the latter, however, are characterized as bullate-tuberculate above and pilose on the veins beneath.

Miconia dichrophylla, spec. nov., arbor 5 m. alta; ramulis acute tetragonis, superne valde compressis, junioribus petiolis pedunculis paniculisque dense squamuloso-pubescentibus; foliis submembranaceis obscure undulatis vel inferne integerrimis, oblongo-ovatis vel -lanceolatis plerumque circa 1.5 dm. longis et 5 cm. latis, basi acutis, apice in caudiculam (acumine 1-2 cm. longo) subabrupte contracto, supra viridibus laevibusque, subtus argenteis pilis lepidotis adpressis

ad medium (praecique ad nervos nervulosque) saepius fulvo-punctatis dense vestitis, 3-plinerviis; petiolis 5-7 mm. longis; paniculis anguste pyramidatis paullo ramosis 0.5-1 dm. longis; paniculae ramis simplicibus vel inferne bi-trifidis 1-2 cm. longis, subsecundifloris; floribus 5-meris sessilibus; calyce campanulato circa 2 mm. longo, leviter 5-costato, minutissime dentato, squamulis fulvis et albidis lepidotis utrinque tecto; petalis suborbicularis circa 1.5 mm. longis, glabris; antheris oblongo-linearibus, apice paullo attenuatis, ut videtur minute uniporosis circa 1 mm. longis, connectivo infra loculos non producto, basi antice obscure bigibboso, postice breviter calcarato; stylo vix clavato, truncato, vix 1.5 mm. longo.—PERU: slender tree of montaña, La Merced, Dept. of Junin, Aug. 10-24, 1923, *Macbride 5495* (TYPE, Field Museum).

The flowers of this species are not fully developed and consequently I am not positive as to their characters: certainly, however, the anthers are spurred posteriorly and this characteristic apparently eliminates the possibilty of referring *M. dichrophylla* to either *M. lepidota* DC. or *M. fulva* (Rich.) DC. to both of which it bears at least some superficial resemblance.

Miconia nectaria, spec. nov., arbor 5-7 m. alta, glaberrima; ramis ramulisque teretibus vel superne plus minusve compressis; foliis subcoriaceis ubique pallide viridibus integerrimis, anguste vel oblongo-ovato-lanceolatis, apice sensim et longe acuminatis, basi acutis vel subobtusis, 1.5-2 dm. longis, 4-6.5 cm. latis, 3-nerviis vel subtriplinerviis; nervis supra leviter impressis, subtus cum nervulis transversalibus satis prominentibus; petiolis 1 vel 2 cm. longis; petiolo etiam lamina basin versus 3-5 nectariis cupiliformis stipitatis instructo; nectariis 2-5 mm. latis; paniculis mediocribus, pyramidatis, 1-1.5 dm. longis; pedicellis circa 2.5 mm. longis; floribus ignotis; calyce 5-lobato; lobis ovatis; bacca subglobosa, 3 mm. crassa; semina pyramidata.—PERU: slender tree of montaña slope, Hacienda Schunke, La Merced, Dept. of Junin, Aug. 27-Sept. 1, 1923, *Macbride 5738* (TYPE, Field Museum).

This species and the following are exceptionally well-marked by the nectar-like appendages that are borne with uniform regularity on the petioles and leaf-bases.

Miconia Aspiazui, spec. nov., *M. nectaria* affinis; ramis ramulisque satis compressis; foliis membranaceis integerrimis ellipticis, basi breviter acutis vel attenuatis, apice, subabrupte longo-acuminatis vel fere caudatis 1.5-2 dm. longis, 8-12 cm. latis, 5-nerviis vel sub-5-plinerviis; petiolis circa 3 cm. longis; paniculis 1.5-2 dm. longis, multifloris; ramulis spiciformis; floribus ignotis; calyce ut videtur minute 5-denticulato; bacca subglobosa, circa 5 mm. crassa.—PERU: La Merced, Dept. of Junin, Aug. 10-24, 1923, *Macbride 5586* (TYPE, Field Museum).

This species has the same curious appendages on the petioles that are described as occuring on the probably closely related *M. nectaria*. *M. Aspiazui*, however, is clearly distinct by virtue of its very different foliage. It is named for Dr. R. Aspiazu, distinguished physician and surgeon of Lima, and enthusiastic student of the local flora who generously aided the work of the Captain Marshall Field Botanical Expeditions to Peru.

Icaria, gen nov. Flores 4-meri. Calycis turbanato-campanulatus; limbus dilatatus, lobatus. Stamina aequalia, breviuscula; filamentis late alatis; antherae breves, ut videtur longitudinaliter 1-2-rimosae, connectivo sub loculis nullo vel non elongato, lateraliter in appendicem latam dilatatam emarginatam fere erecto producto. Ovarium liberum. Bacca sicca coriacea.—Frutex glabratus, caule elongato, tortuoso, adscendente, teretiusculo. Folia petiolata, 3-nervia. Flores mediocres, pedicelati in paniculas parvas terminales depositi.—Affinis videtur *Miconiae*.

Icaria fictilis, spec. nov., fruticosa laxe ramosa; ramis ut videtur suberecto-patentibus flexuosis teretibus glabris, vel junioribus ramulis petiolisque obscure furfuraceis; foliis integerrimis vel minutissime sparseque ciliatis, glabris vel subtus indestincte furfuraceis, late ovato-ellipticis, basi subcordatis, apice vix acutis, plerumque 3-4 cm. longis et 2-2.5 cm. latis, 3-nerviis; nervis subtus paullo prominentibus, nervulis transversalibus haud ramuloso-reticulatis; petiolis gracilibus 1-1.5 cm. longis; paniculis paucifloris racemiformis, 5-7 cm. longis; pedunculis ramulisque inflorescentiarum breviter stellato-furfuraceis; floribus longe pedicellatis; calyce circa 7 mm. longo, subtiliter stellato-furfuraceo, tubo turbinato, limbo dilatato, 4-lobato, extus minutissime tuberculato; lobis late ovatis; petalis circa 5 mm. longis et 6 mm. latis; staminibus fere 6 mm. longis; filamentis 2 mm. latis; antheris obovoideis; appendicibus 1.5 mm. longis, 1 mm. latis, apice irregulariter bidentatis; stylo 4 mm. longo; stigmate peltato; bacca (immatura) 5 mm. crassa, calycis lobis persistentibus coronata.—PERU: in patches on steep shady slope, Tambo de Vaca, Dept. of Huanuco, June 10-24, 1923, *Macbride 4431* (TYPE, Field Museum).

The aspect of this shrub is that of several species in the section *Chaenopleura* of *Miconia* but the broadly winged filaments and the curious wing-like erect appendages at either side of the anther at its base are characters that are entirely at variance with the generic character of that genus. The fruit, however, is undoubtedly baccate which places the plant in the tribe *Miconieae* although in this tribe highly specialized stamineal development is most unusual. I am indebted to Dr. Paul C. Standley for suggesting the generic name.

5. VARIANTS OF OSTRYA AND A TEXAS TEPHROSIA

OSTRYA VIRGINIANA (Mill.) K. Koch, forma **glandulosa** (Spach), comb. nov. *O. virginica* (Moench.) Willd., var. *glandulosa* Spach, Ann. Sci. Nat. 2 sér. **16**: 246. 1841. *O. virginiana* (Mill.) K. Koch, var. *glandulosa* (Spach) Sarg. Bot. Gaz. **62**: 216. 1919.

My attention has been called to this form—characterized by the presence, in greater or less abundance, of stiffish glandular trichomes intermixed with the usual substrigose pubescence of the petioles, young branchlets and peduncles—by my own collection, number *7000* from Trout Park, Elgin, Ill., Aug. 30, 1926. Examination of the series of specimens in the Illinois Herbarium of the Field Museum indicates that this variant is not at all uncommon and apparently grows together with the typical eglandular state of the species, as observed for Indiana by Mr. Deam, Trees of Ind., Dept. Conserv. Publ. **13**: 80. 1921. As there appear to be no other differences associated with the glandulosity, it seems better to regard it as merely a glandular form. House, N. Y. State Mus. Bull. **254**: 267. 1924 lists it for western New York with the remark "is scarcely worthy of varietal rank." It seems to grow with the typical form in general throughout the northern portion of the species' range but the specimens of forma *glandulosa* that I have seen from New England, New York and Pennsylvania are usually less glandular than many, at least, of the collections from farther west.

In this connection I have studied the specimens in the herbarium of the Field Museum from the southern area of the species' range and have reached the conclusion of Winkler, Pflanzenr. 4. **61**: 22. 1904, that the Mexican and Central American plants with somewhat more pubescent more nearly oblong more or less doubly serrate leaves are too nearly approached by material from the southern states and accordingly are better regarded as constituting a geographical variety, that even then is often obscurely marked. Standley, Contrib. U. S. Nat. Herb. **23**: 169. 1920, considers the Mexican plant, under the name *O. guatemalensis* (Winkl.) Rose, "very closely related to *O. virginiana* but seems fairly distinct." However, he describes the leaves as "ovate" which is indicative of their variability since the term is applicable particularly to the form proposed as *O. mexicana* Rose, very properly referred by Standley to *O. guatemalensis*. If one regards *O. virginiana* as distinct from the Old World *O. italica* and the Mexican plant as a variety of the former, its name and synonymy are as follows:

OSTRYA VIRGINIANA (Mill.) Koch, var. **guatemalensis** (Winkl.), comb. nov. *O. italica* Scop., subsp. *virginiana* (Mill.) Winkl., var. *guatemalensis* Winkl. Pflanzenr. 4: **61**: 22. 1904. *O. guatemalensis* (Winkl.) Rose, Contrib. U. S. Nat. Herb. **8**: 292. 1905. *O. mexicana* Rose, l.c.

TEPHROSIA ONOBRYCHOIDES Nutt. Journ. Acad. Phil. **7**: 104. 1834; T. & G. Fl. N. Am. **1**: 292. 1838.—TEXAS: Dallas, June, 1877, *Reverchon*; Fayette Co., 1892, *E. W. Crawford 47*; Houston, June 17, 1926, *G. Eifrig*. INDIAN TERRITORY: Limestone Gap, July 4, 1877, *Geo. D. Butter 115*. LOUISIANA: *Dr. Hale*.

TEPHROSIA ONOBRYCHOIDES Nutt., var. **texana** (Rydb.), comb. nov. *Cracca texana* Rydb. N. Am. Fl. **24**: 176. 1923.—TEXAS: Hemstead, July 1, 1872, *E. Hall 119*; Hockley, 1890, *W. F. Thurow*; Fayette Co., 1891, *H. Wurzlow*; Houston, July 13, 1926, *G. Eifrig*. LOUISIANA: Alexandria, *Hale*.

Dr. Rydberg's *Cracca texana*, l.c., is a fairly well marked herbarium species by virtue of the appressed strigose character of its pubescence especially on the calyx and under surfaces of the leaves. The pubescence of typical *T. onobrychoides* is more pilose in quality and mostly spreading. However, there is some intermixture of strigose hairs. Furthermore, as shown by the above citations, collections have been made in the same localities that, except for this somewhat variable difference in the nature of the pubescence, appear to be indistinguishable. Accordingly it seems that the character of *T. onobrychoides* can be most logically defined by including *C. texana* in it as variety.

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